

**U.S. Environmental Protection Agency**

**Geospatial Data Download Service**

**Geospatial Data File (XML)**

**Version 1.0**

**January 4, 2008**

**Revision D**

**Published by:**



**United States Environmental Protection Agency  
Office of Environmental Information  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460**

**Document No.: 51-FRS-RPT-0051**

## Change History

Version #	Date	Change Author	Change Summary
1.0	January 8, 2007	Kadans, Veeree	Initial document.
1.0	March 19, 2007	Gieseke, Leonard	Added information on new program data sources. Added new XML sample in Appendix C.
1.0	May 10, 2007	Gieseke, Leonard	Added information on new program data source added to the file.
1.0	July 17, 2007	Gieseke, Leonard	Updated information on program data source.
1.0	January 4, 2008	Gieseke, Leonard	Added information on new program data sources added to the file.

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## 1.0 INTRODUCTION

To improve public health and the environment, the United States Environmental Protection Agency (EPA) collects information about facilities, sites, or places subject to environmental regulation or of environmental interest. Through the Geospatial Data Download Service, the public is now able to download the EPA Geospatial Data File containing facility and site information from EPA's national program systems. The file is Internet accessible from the Envirofacts Web site ([www.epa.gov/enviro](http://www.epa.gov/enviro)). The data may be downloaded in Extensible Markup Language (XML), Environmental Systems Research Institute (ESRI) Shapefile, or ESRI relational feature class format. All three can be used with geospatial mapping applications. (Note: the XML file includes all facilities related to the available national programs even if the latitude/longitude coordinates are unavailable. Both the Shapefile and relational feature class files omit facilities without latitude/longitude coordinates.) The EPA Geospatial Data File contains the name, location (latitude/longitude), and EPA program information about specific facilities and sites. In addition, the file contains a Uniform Resource Locator (URL), which allows mapping applications to present an option to users to access additional EPA data resources on a specific facility or site.

This document focuses on the XML format of downloaded information. For information on the Shapefile download format, see the document titled, *EPA Geospatial Data Download Service Geospatial Data File (Shapefile)*. For information on the relational feature class download format, see the document titled, *EPA Geospatial Data Download Services Geospatial Data File (Feature Class)*.

## 2.0 SCOPE AND PURPOSE OF DOCUMENT

This document provides the information necessary for a user to utilize the Geospatial Data Download Service. The reader is assumed to have basic knowledge of XML technology. Section 3.0, Data Sources, identifies the data sources used to create the EPA Geospatial Data File and an overview of how the file is generated. Section 4.0, Data Schema, describes the XML data schema in which the file is formatted. Section 5.0, Data Transfer Process, describes the process a user needs to follow to access the file through the service. Appendix A, Acronyms and Definitions, provides a list of the abbreviations used in this document. Appendix B, XML Schema, provides the XML data schema definition. Appendix C, Sample XML Data File, provides a sample EPA Geospatial Data File. The latest version of this document is available from the Geospatial Data Download Web page by clicking the **Resources** hyperlink then clicking the **XML** hyperlink in the Documentation section of the Geospatial Data Resources Web page.

## 3.0 DATA SOURCES

The EPA Geospatial Data File is generated by an EPA system from data received from four national environmental programs.

### 3.1 FILE GENERATION

The EPA Geospatial Data File is created by the Facility Registry System (FRS). FRS is a centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. FRS creates high quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, data collected from EPA's Central Data Exchange registrations and data management personnel. Each facility, site or place is given a unique FRS identifier to allow cross referencing between environmental programs. FRS provides a single integrated source of comprehensive (air, water, and waste) environmental information about facilities, sites, or places to other EPA systems such as Envirofacts.

#### 3.1.1 DATA REFRESH

The EPA Geospatial Data File will be periodically updated approximately once a month. An e-mail notification service is available to alert users of updates. Users can sign up for e-mail notification from the Geospatial Data Download Service Web page.

### **3.1.2 DATA ACCURACY DISCLAIMER**

This data concerns the location of facilities and sites that are regulated by, or of interest to, the EPA in conducting its regulatory mission. The information on the facilities and sites, including the locations, has been gathered from a number of sources. While EPA subjects the data to Quality Assurance (QA) procedures the Agency cannot vouch for the reliability of all the data. Users of the data (or any portion thereof) may wish to verify its accuracy before use. FRS contains geospatial coordinates for 95% of the active facility records in this data set but does not contain coordinates for the remaining 5% of facilities. Only the XML version of the EPA Geospatial Data File contains facility records without coordinates.

### **3.2 PROGRAM DATA SOURCES**

The EPA Geospatial Data File contains information from four national programs listed in Table 1. Data sets from other environmental programs may be incorporated in the future.

**Table 1. Environmental Program Data Sources**

<b>Program</b>	<b>Description</b>
Superfund - National Priorities List (NPL)	The Superfund Program, administered under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is an EPA Program to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. The NPL is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation.
Resource Conservation and Recovery Act (RCRA) – Treatment, Storage, Disposal Facilities (TSD)	Through the Resource Conservation and Recovery Act (RCRA), Congress directed EPA to create regulations to manage hazardous waste from 'the cradle to the grave.' Under this mandate, EPA developed strict requirements for all aspects of hazardous waste management including the treatment, storage, and disposal of hazardous waste. This data source includes RCRA TSD regulated by EPA and by States along with Corrective Action Facilities.
Resource Conservation and Recovery Act (RCRA) – Large Quantity Generators (LQG)	Subtitle C of the Resource Conservation and Recovery Act (RCRA) regulates hazardous waste generators. A generator is any person, or site, whose processes and actions create hazardous waste. Large quantity generators of hazardous waste meet or exceed any one of the following Federal criteria: <ul style="list-style-type: none"><li>- 1,000 kg or more of hazardous waste during any calendar month or</li><li>- more than 1 kg of acutely hazardous waste during any calendar month or</li><li>- more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month or</li><li>- 1 kg or less of acutely hazardous waste during any calendar month, and accumulate more than 1 kg of acutely hazardous waste at any time or</li><li>- 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulated more than 100 kg of that material at any time.</li></ul>
Toxics Release Inventory Program	The Toxics Release Inventory (TRI) is a publicly available EPA database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities. TRI reporters for all reporting years are provided in the file.

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Program	Description
Air Facility System (AFS) – Major dischargers of air pollutants	The Clean Air Act requires a major discharger of air pollutants to obtain a Title V operating permit. The Air Facility System (AFS) tracks discharging facilities. A stationary facility is classified as a major discharger if: <ul style="list-style-type: none"><li>- actual or potential emissions are above the applicable major source thresholds or</li><li>- actual or potential controlled emissions &gt; 100 tons/year as per Alabama power decision or</li><li>- unregulated pollutant actual or potential controlled emissions &gt; 100 tons/year as per Alabama power decision.</li></ul>
National Environmental Performance Track (NEPT)	National Environmental Performance Track is a partnership that recognizes top environmental performance among participating U.S. facilities of all types, sizes, and complexity, public and private. Program partners are providing leadership in many areas, including some that are not currently regulated, such as energy use, greenhouse gas emissions, and water consumption.
National Pollutant Discharge Elimination System (NPDES)	Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Only major NPDES interests maintained in the Permit Compliance System (PCS) are provided in the file.

## 4.0 DATA SCHEMA

The XML format of the EPA Geospatial Data File is defined as a XML data schema. A description of schema defined tags, schema document properties, the schema structure, and type definitions are provided in the sections below. The schema definition is provided in Appendix B. The latest schema is available at Geospatial Data Download Web page by clicking the **Resources** hyperlink then clicking the **Geospatial XML Schema** hyperlink on the Geospatial Data Resources Web page.

### 4.1 TAG DESCRIPTION

Table 2 describes the XML tags defined for use in this schema.

**Table 2. XML Tag Description**

Tag Name	Description
<Title>	A name given to the resource.
<Creator>	An entity primarily responsible for making the content of the resource.
<Subject>	A topic of the content of the resource.
<Description>	An account of the content of the resource.
<Date>	A date of an event in the lifecycle of the resource.
<FacilitySiteName>	The public or commercial name of a facility site (i.e., the full name that commonly appears on invoices, signs, or other business documents, or as assigned by the state when the name is ambiguous).
<LocationAddressText>	The address that describes the physical (geographic) location of the front door or main entrance of a facility site, including urban-style street address or rural address.
<LocalityName>	The name of the city, town, village, or other locality.
<LocationAddressStateCode>	A code designator used to identify a principal administrative subdivision of the United States, Canada, or Mexico.
<LocationZIPCode>	The combination of the 5-digit Zone Improvement Plan (ZIP) code and the four-digit extension code (if available) that represents the geographic segment that is a subunit of the ZIP Code, assigned by the U.S. Postal Service to a geographic location to facility.
<LatitudeMeasure>	The measure of the angular distance on a meridian north or south of the equator.
<LongitudeMeasure>	The measure of the angular distance on a meridian east or west of the prime meridian.

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Tag Name	Description
<HorizontalCoordinateReferenceSystemDatumName>	The name that describes the reference datum used in determining latitude and longitude coordinates.
<HorizontalCollectionMethodName>	The name that identifies the method used to determine the latitude and longitude coordinates for a point on the earth.
<GeographicReferencePointName>	The name that identifies the place for which geographic coordinates were established.
<SourceMapScaleNumeric>	The number that represents the proportional distance on the ground for one unit of measure on the map or photo.
<ElectronicAddressText>	A resource address, usually consisting of the access protocol, the domain name, and optionally, the path to a file or location.
<ElectronicAddressTypeName>	The name that describes the electronic address type. This is commonly a URL address to a Web site.
<ProgramCommonName>	The common name for an environmental program.
<ProgramAcronymName>	The acronym used for an environmental program.
<ProgramIdentifier>	The environmental program specific site identifier. This identifier is different from the FRS facility identifier.
<ProgramInterestType>	The environmental interest type for a program facility.
<ProgramFullName>	The official name for an environmental program.
<ProgramDescription>	The description of an environmental program.
<ProgramFacilitySiteName>	The site name for a facility as known to the environmental program. This may be different from the FRS facility site name.

## 4.2 HORIZONTAL DATUMS

The horizontal datum field (tag <HorizontalCoordinateReferenceSystemDatumName> ) provides information on the datum used to site the location of the facility in FRS. The datum used by the EPA Geospatial Data File will always be NAD83.

#### 4.3 SCHEMA DOCUMENT PROPERTIES

Table 3 describes the properties of the XML schema used to create the EPA Geospatial Data File.

**Table 3.***Schema Properties*

<b><u>Target Namespace</u></b>	None
<b>Version</b>	1.0
<b>Documentation</b>	Schema Name: EPA_GEO DATA_v1.0.xsd Current Version Available At: Description: This schema is used to produce a data set with the locations of EPA Regulated Facilities for use by commercial mapping services and others in industry. Application: EPA Geospatial Data Public File Developed by: Environmental Protection Agency Point of Contact: Environmental Protection Agency

## 4.4 SCHEMA STRUCTURE AND DEFINITIONS

The following subsections describe, in detail, the schema structure and definitions used for file creation.

The XML schema has three structures: Root, header, and payload. A table for each type provides the type name, abstract property, any super-types, any sub-types, a diagram showing type structure, the XML instance representation for complex types, and the schema component representation.

### 4.4.1 THE ROOT STRUCTURE

The root structure is required and it defines the documentation in regards to the XML file. The root structure is defined as the element *Document*. It includes the header and the facility site type.

#### 4.4.1.1 ELEMENT: Document

**Table 4. Document Structure**

<b>Name</b>	Document
<b>Type</b>	Locally-defined complex type
<b>Nullable</b>	No
<b>Abstract</b>	No
<b>Diagram</b>	<pre> classDiagram     class Document {         &lt;&lt;Complex Type&gt;&gt;     }     class Header {         &lt;&lt;HeaderType&gt;&gt;     }     class FacilitySite {         &lt;&lt;FacilitySiteType&gt;&gt;     }      Document &lt; -- Header     Document &lt; -- FacilitySite   </pre>
<b>XML Instance Representation</b>	<pre> &lt;Document&gt;   &lt;Header&gt; <a href="#">HeaderType</a> &lt;/Header&gt; [1]   &lt;FacilitySite&gt; <a href="#">FacilitySiteType</a> &lt;/FacilitySite&gt; [0..*] &lt;/Document&gt;   </pre>
<b>Schema Component Representation</b>	<pre> &lt;xsd:element name="Document"&gt;   &lt;xsd:complexType&gt;     &lt;xsd:sequence&gt;       &lt;xsd:element name="Header" type="<a href="#">HeaderType</a>" /&gt;       &lt;xsd:element name="FacilitySite" type="<a href="#">FacilitySiteType</a>" minOccurs="0" maxOccurs="unbounded"/&gt;     &lt;/xsd:sequence&gt;   &lt;/xsd:complexType&gt; &lt;/xsd:element&gt;   </pre>

#### 4.4.2 THE HEADER STRUCTURE

The header, or metadata, structure describes the title of the file, who wrote the data file, the type of information the XML file contains, and when the file was created.

##### 4.4.2.1 COMPLEX TYPE: **HeaderType**

**Table 5. Header Structure**

<b>Name</b>	HeaderType
<b>Abstract</b>	No
<b>Super-types</b>	None
<b>Sub-types:</b>	None
<b>Diagram</b>	<pre> classDiagram     class HeaderType {         &lt;&lt;Complex Type&gt;&gt;         &lt;&lt;Sequence&gt;&gt;         &lt;&lt;Title&gt;&gt;         &lt;&lt;Creator&gt;&gt;         &lt;&lt;Subject&gt;&gt;         &lt;&lt;Description&gt;&gt;         &lt;&lt;Date&gt;&gt;     }   </pre>
<b>XML Instance Representation</b>	<pre> &lt;...&gt; &lt;Title&gt; xsd:string &lt;/Title&gt; [0..1] &lt;Creator&gt; xsd:string &lt;/Creator&gt; [0..1] &lt;Subject&gt; xsd:string &lt;/Subject&gt; [0..1] &lt;Description&gt; xsd:string &lt;/Description&gt; [0..1] &lt;Date&gt; xsd:date &lt;/Date&gt; [0..1] &lt;/...&gt;   </pre>
<b>Schema Component Representation</b>	<pre> &lt;xsd:complexType name="HeaderType"&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element name="Title" type="xsd:string" minOccurs="0"/&gt;     &lt;xsd:element name="Creator" type="xsd:string" minOccurs="0"/&gt;     &lt;xsd:element name="Subject" type="xsd:string" minOccurs="0"/&gt;     &lt;xsd:element name="Description" type="xsd:string" minOccurs="0"/&gt;     &lt;xsd:element name="Date" type="xsd:date" minOccurs="0"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;   </pre>

#### **4.4.3 PAYLOAD STRUCTURE**

The payload structure defines that actual data in the file. There are nine element structure types (complex and simple) defined by the schema that are used to describe the data. A complex element structure is an XML element that contains other elements and/or attributes. A simple element is an XML element that can contain only text. It cannot contain any other elements or attributes. The following subsections describe the different data types included and what specific data is being used.

##### **4.4.3.1 COMPLEX TYPE: FacilitySiteType**

**Table 6.** *Payload Structure for Facility Site Type*

<b>Name</b>	FacilitySiteType
<b>Abstract</b>	No
<b>Super-types</b>	None
<b>Sub-types</b>	None

**Diagram****XML Instance Representation**

```

< FacilitySite registryId="xsd:string [1]>
<FacilitySiteName> xsd:string </FacilitySiteName> [1]
<LocationAddressText> xsd:string </LocationAddressText> [0..1]
<LocalityName> xsd:string </LocalityName> [0..1]
<LocationAddressStateCode> StateCodeDataType </LocationAddressStateCode> [0..1]
<LocationZIPCode> xsd:string </LocationZIPCode> [0..1]
<LatitudeMeasure> LatitudeDataType </LatitudeMeasure> [0..1]
<LongitudeMeasure> LongitudeDataType </LongitudeMeasure> [0..1]
<HorizontalCoordinateReferenceSystemDatumName> HorizontalDatumDataType
</HorizontalCoordinateReferenceSystemDatumName> [0..1]
<HorizontalCollectionMethodName> HorizontalMethodDataType
</HorizontalCollectionMethodName> [0..1]
<GeographicReferencePointName> ReferencePointDataType
</GeographicReferencePointName> [0..1]
<SourceMapScaleNumeric> xsd:nonNegativeInteger </SourceMapScaleNumeric> [0..1]
<GeneralProfileElectronicAddress> ElectronicAddress
</GeneralProfileElectronicAddress> [0..1]
<Program> ProgramType </Program> [0..*]

```

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	</FacilitySite>
<b>Schema Component Representation</b>	<pre>&lt;xsd:complexType name="FacilitySiteType"&gt; &lt;xsd:sequence&gt; &lt;xsd:element name="FacilitySiteName" type="xsd:string"/&gt; &lt;xsd:element name="LocationAddressText" type="xsd:string" minOccurs="0"/&gt; &lt;xsd:element name="LocalityName" type="xsd:string" minOccurs="0"/&gt; &lt;xsd:element name="LocationAddressStateCode" type="StateCodeDataType" minOccurs="0"/&gt; &lt;xsd:element name="LocationZIPCode" type="xsd:string" minOccurs="0"/&gt; &lt;xsd:element name="LatitudeMeasure" type="Latitude DataType" minOccurs="0"/&gt; &lt;xsd:element name="LongitudeMeasure" type="Longitude DataType" minOccurs="0"/&gt; &lt;xsd:element name="HorizontalCoordinateReferenceSystemDatumName" type="HorizontalDatum DataType" minOccurs="0"/&gt; &lt;xsd:element name="HorizontalCollectionMethodName" type="HorizontalMethod DataType" minOccurs="0"/&gt; &lt;xsd:element name="GeographicReferencePointName" type="ReferencePoint DataType" minOccurs="0"/&gt; &lt;xsd:element name="SourceMapScaleNumeric" type="xsd:nonNegativeInteger" minOccurs="0"/&gt; &lt;xsd:element name="GeneralProfileElectronicAddress" type="ElectronicAddress" minOccurs="0"/&gt; --one facility site may have multiple program facilities with specific interestType --&gt; &lt;xsd:element name="Program" type="ProgramType" minOccurs="0" maxOccurs="unbounded"/&gt; &lt;/xsd:sequence&gt; &lt;xsd:attribute name="registryId" type="xsd:string" use="required"/&gt; &lt;/xsd:complexType&gt;</pre>

#### 4.4.3.2 COMPLEX TYPE: **ElectronicAddress**

**Table 7.** Payload Structure for Electronic Address

<b>Name</b>	ElectronicAddress
<b>Abstract</b>	No
<b>Super-types</b>	None
<b>Sub-types</b>	None
<b>Diagram</b>	<pre> classDiagram     class ElectronicAddress {         &lt;&lt;Complex Type&gt;&gt;     }     class ElectronicAddressText {         &lt;&lt;xsd:anyURI&gt;&gt;     }     class ElectronicAddressTypeName {         &lt;&lt;xsd:string&gt;&gt;     }     ElectronicAddress "1" -- "2" ElectronicAddressText     ElectronicAddress "1" -- "2" ElectronicAddressTypeName   </pre>
<b>XML Instance Representation</b>	<pre> &lt;...&gt; &lt;ElectronicAddressText&gt; <a href="#">xsd:anyURI</a> &lt;/ElectronicAddressText&gt; [1] &lt;ElectronicAddressTypeName&gt; <a href="#">xsd:string</a> &lt;/ElectronicAddressTypeName&gt; [1] &lt;/...&gt;   </pre>
<b>Schema Component Representation</b>	<pre> &lt;xsd:complexType name="ElectronicAddress"&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element name="ElectronicAddressText" type="<a href="#">xsd:anyURI</a>" /&gt;     &lt;xsd:element name="ElectronicAddressTypeName" type="<a href="#">xsd:string</a>" /&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt;   </pre>

#### 4.4.3.3 COMPLEX TYPE: ProgramType

**Table 8.** Payload Structure of Program Type

Name	ProgramType
<u>Abstract</u>	No
Super-types	None
Sub-types	None
Diagram	<pre> classDiagram     class ProgramType {         ProgramCommonName         ProgramAcronymName         ProgramIdentifier         ProgramInterestType         ProgramFullName         ProgramDescription         ProgramFacilitySiteName         ProgramProfileElectronicAddress     }     ProgramCommonName &lt; -- ProgramType     ProgramAcronymName &lt; -- ProgramType     ProgramIdentifier &lt; -- ProgramType     ProgramInterestType &lt; -- ProgramType     ProgramFullName &lt; -- ProgramType     ProgramDescription &lt; -- ProgramType     ProgramFacilitySiteName &lt; -- ProgramType     ProgramProfileElectronicAddress &lt; -- ProgramType   </pre>
XML Instance Representation	<pre> &lt;...&gt; &lt;ProgramCommonName&gt; <a href="#">xsd:string</a> &lt;/ProgramCommonName&gt; [1] &lt;ProgramAcronymName&gt; <a href="#">xsd:string</a> &lt;/ProgramAcronymName&gt; [1] &lt;ProgramIdentifier&gt; <a href="#">xsd:string</a> &lt;/ProgramIdentifier&gt; [1] &lt;ProgramInterestType&gt; <a href="#">xsd:string</a> &lt;/ProgramInterestType&gt; [1] &lt;ProgramFullName&gt; <a href="#">xsd:string</a> &lt;/ProgramFullName&gt; [1] &lt;ProgramDescription&gt; <a href="#">xsd:string</a> &lt;/ProgramDescription&gt; [1] &lt;ProgramFacilitySiteName&gt; <a href="#">xsd:string</a> &lt;/ProgramFacilitySiteName&gt; [1] &lt;ProgramProfileElectronicAddress&gt; <a href="#">ElectronicAddress</a> &lt;/ProgramProfileElectronicAddress&gt; [1]   </pre>

	</...>
<b>Schema Component Representation</b>	<pre> &lt;xsd:complexType name="ProgramType"&gt;   &lt;xsd:sequence&gt;     &lt;xsd:element name="ProgramCommonName" type="xsd:string"/&gt;     &lt;xsd:element name="ProgramAcronymName" type="xsd:string"/&gt;     &lt;xsd:element name="ProgramIdentifier" type="xsd:string"/&gt;     &lt;xsd:element name="ProgramInterestType" type="xsd:string"/&gt;     &lt;xsd:element name="ProgramFullName" type="xsd:string"/&gt;     &lt;xsd:element name="ProgramDescription" type="xsd:string"/&gt;     &lt;xsd:element name="ProgramFacilitySiteName" type="xsd:string"/&gt;     &lt;xsd:element name="ProgramProfileElectronicAddress"       type="ElectronicAddress"/&gt;   &lt;/xsd:sequence&gt; &lt;/xsd:complexType&gt; </pre>

#### 4.4.3.4 SIMPLE TYPE: **HorizontalDatumDataType**

**Note:** The data will be supplied using the North American Datum of 1983 (NAD83).

**Table 9.** Payload Structure for Horizontal Datum Data Type

<b>Name</b>	HorizontalDatumDataType
<b>Super-types</b>	<a href="#">xsd:string</a> < <b>HorizontalDatumDataType</b> (by restriction)
<b>Sub-types</b>	None
<b>Content</b>	<ul style="list-style-type: none"> <li>• Base XSD Type: string</li> <li>• value comes from list: {'NAD27' 'NAD83' 'WGS84'}</li> </ul>
<b>Diagram</b>	<pre> classDiagram     class HorizontalDatumDataType {         &lt;&lt;Simple Type&gt;&gt;     }     class xsdString {         &lt;&lt;Base Type&gt;&gt;     }     HorizontalDatumDataType --o Restrict : xsdString     Restrict &lt; -- xsdString     Restrict &lt;--&gt; Enumeration {         &lt;&lt;Enumeration&gt;&gt;         "NAD27"         "NAD83"         "WGS84"     }   </pre>
<b>Schema Component Representation</b>	<pre> &lt;xsd:simpleType name="HorizontalDatumDataType"&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="NAD27"/&gt;     &lt;xsd:enumeration value="NAD83"/&gt;     &lt;xsd:enumeration value="WGS84"/&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt; </pre>

#### 4.4.3.5 SIMPLE TYPE: **HorizontalMethodDataType**

**Table 10.** Payload Structure for Horizontal Method Data Type

<b>Name</b>	HorizontalMethodDataType
<b>Super-types</b>	<a href="#">xsd:string</a> < <b>HorizontalMethodDataType</b> (by restriction)
<b>Sub-types</b>	None
<b>Content</b>	<ul style="list-style-type: none"> <li>Base XSD Type: string</li> <li><i>value</i> comes from list: {'ADDRESS MATCHING-BLOCK FACE' 'ADDRESS MATCHING-DIGITIZED' 'ADDRESS MATCHING-HOUSE NUMBER' 'ADDRESS MATCHING-NEAREST INTERSECTION' 'ADDRESS MATCHING-OTHER' 'ADDRESS MATCHING-PRIMARY NAME' 'ADDRESS MATCHING-STREET CENTERLINE' 'CENSUS BLOCK/GROUP-1990-CENTROID' 'CENSUS BLOCK/TRACT-1990-CENTROID' 'CENSUS BLOCK-1990-CENTROID' 'CENSUS-OTHER' 'CLASSICAL SURVEYING TECHNIQUES' 'GPS-UNSPECIFIED' 'GPS CARRIER PHASE KINEMATIC RELATIVE POSITION' 'GPS CARRIER PHASE STATIC RELATIVE POSITION' 'GPS CODE (PSEUDO RANGE) DIFFERENTIAL' 'GPS CODE (PSEUDO RANGE) PRECISE POSITION' 'GPS CODE (PSEUDO RANGE) STANDARD POSITION (SA OFF)' 'GPS CODE (PSEUDO RANGE) STANDARD POSITION (SA ON)' 'GPS, WITH CANADIAN ACTIVE CONTROL SYSTEM' 'INTERPOLATION-DIGITAL MAP SRCE (TIGER)' 'INTERPOLATION-SPOT' 'INTERPOLATION-MSS' 'INTERPOLATION-TM' 'INTERPOLATION-MAP' 'INTERPOLATION-OTHER' 'INTERPOLATION-PHOTO' 'INTERPOLATION-SATELLITE' 'LORAN C' 'PUBLIC LAND SURVEY-EIGHTH SECTION' 'PUBLIC LAND SURVEY-FOOTING' 'PUBLIC LAND SURVEY-SIXTEENTH SECTION' 'PUBLIC LAND SURVEY-QUARTER SECTION' 'PUBLIC LAND SURVEY-SECTION' 'UNKNOWN' 'ZIP CODE-CENTROID' 'ZIP+2 CENTROID' 'ZIP+4 CENTROID' 'GDT-ADDRESS MATCHING (GEOCODING)')}</li> </ul>
<b>Diagram</b>	<pre> classDiagram     class HorizontalMethodDataType {         &lt;&lt;xsd:simpleType name="HorizontalMethodDataType"&gt;&gt;         &lt;&lt;xsd:restriction base="xsd:string"&gt;&gt;         &lt;&lt;xsd:enumeration value="ADDRESS MATCHING-BLOCK FACE"/&gt;&gt;         &lt;&lt;xsd:enumeration value="ADDRESS MATCHING-DIGITIZED"/&gt;&gt;         &lt;&lt;xsd:enumeration value="ADDRESS MATCHING-HOUSE NUMBER"/&gt;&gt;         &lt;&lt;xsd:enumeration value="ADDRESS MATCHING-NEAREST INTERSECTION"/&gt;&gt;         &lt;&lt;xsd:enumeration value="ADDRESS MATCHING-OTHER"/&gt;&gt;         &lt;&lt;xsd:enumeration value="ADDRESS MATCHING-PRIMARY NAME"/&gt;&gt;         &lt;&lt;xsd:enumeration value="ADDRESS MATCHING-STREET CENTERLINE"/&gt;&gt;         &lt;&lt;xsd:enumeration value="CENSUS BLOCK/GROUP-1990-CENTROID"/&gt;&gt;         &lt;&lt;xsd:enumeration value="CENSUS BLOCK/TRACT-1990-CENTROID"/&gt;&gt;         &lt;&lt;xsd:enumeration value="CENSUS BLOCK-1990-CENTROID"/&gt;&gt;         &lt;&lt;xsd:enumeration value="CENSUS-OTHER"/&gt;&gt;     } </pre>
<b>Schema Component Representation</b>	<pre> &lt;xsd:simpleType name="HorizontalMethodDataType"&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:enumeration value="ADDRESS MATCHING-BLOCK FACE"/&gt;     &lt;xsd:enumeration value="ADDRESS MATCHING-DIGITIZED"/&gt;     &lt;xsd:enumeration value="ADDRESS MATCHING-HOUSE NUMBER"/&gt;     &lt;xsd:enumeration value="ADDRESS MATCHING-NEAREST INTERSECTION"/&gt;     &lt;xsd:enumeration value="ADDRESS MATCHING-OTHER"/&gt;     &lt;xsd:enumeration value="ADDRESS MATCHING-PRIMARY NAME"/&gt;     &lt;xsd:enumeration value="ADDRESS MATCHING-STREET CENTERLINE"/&gt;     &lt;xsd:enumeration value="CENSUS BLOCK/GROUP-1990-CENTROID"/&gt;     &lt;xsd:enumeration value="CENSUS BLOCK/TRACT-1990-CENTROID"/&gt;     &lt;xsd:enumeration value="CENSUS BLOCK-1990-CENTROID"/&gt;     &lt;xsd:enumeration value="CENSUS-OTHER"/&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt; </pre>

```
<xsd:enumeration value="CLASSICAL SURVEYING TECHNIQUES"/>
<xsd:enumeration value="GPS-UNSPECIFIED"/>
<xsd:enumeration value="GPS CARRIER PHASE KINEMATIC RELATIVE POSITION"/>
<xsd:enumeration value="GPS CARRIER PHASE STATIC RELATIVE POSITION"/>
<xsd:enumeration value="GPS CODE (PSEUDO RANGE) DIFFERENTIAL"/>
<xsd:enumeration value="GPS CODE (PSEUDO RANGE) PRECISE POSITION"/>
<xsd:enumeration value="GPS CODE (PSEUDO RANGE) STANDARD POSITION (SA OFF)"/>
<xsd:enumeration value="GPS CODE (PSEUDO RANGE) STANDARD POSITION (SA ON)"/>
<xsd:enumeration value="GPS, WITH CANADIAN ACTIVE CONTROL SYSTEM"/>
<xsd:enumeration value="INTERPOLATION-DIGITAL MAP SRCE (TIGER)"/>
<xsd:enumeration value="INTERPOLATION-SPOT"/>
<xsd:enumeration value="INTERPOLATION-MSS"/>
<xsd:enumeration value="INTERPOLATION-TM"/>
<xsd:enumeration value="INTERPOLATION-MAP"/>
<xsd:enumeration value="INTERPOLATION-OTHER"/>
<xsd:enumeration value="INTERPOLATION-PHOTO"/>
<xsd:enumeration value="INTERPOLATION-SATELLITE"/>
<xsd:enumeration value="LORAN C"/>
<xsd:enumeration value="PUBLIC LAND SURVEY-EIGHTH SECTION"/>
<xsd:enumeration value="PUBLIC LAND SURVEY-FOOTING"/>
<xsd:enumeration value="PUBLIC LAND SURVEY-SIXTEENTH SECTION"/>
<xsd:enumeration value="PUBLIC LAND SURVEY-QUARTER SECTION"/>
<xsd:enumeration value="PUBLIC LAND SURVEY-SECTION"/>
<xsd:enumeration value="UNKNOWN"/>
<xsd:enumeration value="GDT-ADDRESS MATCHING (GEOCODING)"/>
</xsd:restriction>
</xsd:simpleType>
```

#### 4.4.3.6 SIMPLE TYPE: **LatitudeDataType**

**Table 11.** Payload Structure for Latitude Data Type

<b>Name</b>	LatitudeDataType
<b>Super-types</b>	<a href="#">xsd:decimal</a> < <b>LatitudeDataType</b> (by restriction)
<b>Sub-types</b>	None
<b>Content</b>	<ul style="list-style-type: none"> <li>• Base XSD Type: decimal</li> <li>• <i>total no. of digits = 8</i></li> <li>• <i>no. of fraction digits = 6</i></li> </ul>
<b>Diagram</b>	<pre> classDiagram     class LatitudeDataType {         &lt;&lt;xsd:restriction base="xsd:decimal"&gt;&gt;         &lt;&lt;xsd:totalDigits value="8"/&gt;&gt;         &lt;&lt;xsd:fractionDigits value="6"/&gt;&gt;     }     class xsd:decimal     LatitudeDataType "1" -- "1" xsd:decimal : Restrict   </pre>
<b>Schema Component Representation</b>	<pre> &lt;xsd:simpleType name="LatitudeDataType"&gt;   &lt;xsd:restriction base="xsd:decimal"&gt;     &lt;xsd:totalDigits value="8"/&gt;     &lt;xsd:fractionDigits value="6"/&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;   </pre>

#### 4.4.3.7 SIMPLE TYPE: **LongitudeDataType**

**Table 12.** Payload Structure for Longitude Data Type

<b>Name</b>	LongitudeDataType
<b>Super-types</b>	<a href="#">xsd:decimal</a> < <b>LongitudeDataType</b> (by restriction)
<b>Sub-types</b>	None
<b>Content</b>	<ul style="list-style-type: none"> <li>• Base XSD Type: decimal</li> <li>• <i>total no. of digits = 9</i></li> <li>• <i>no. of fraction digits = 6</i></li> </ul>
<b>Diagram</b>	<pre> classDiagram     class LongitudeDataType {         &lt;&lt;LongitudeDataType&gt;&gt;     }     class xsd_decimal {         &lt;&lt;xsd:decimal&gt;&gt;     }     LongitudeDataType "3" -- "1" xsd_decimal : Restrict : xsd:decimal     xsd_decimal "1" -- "1" xsd_decimal : Base Type xsd:decimal   </pre>
<b>Schema Component Representation</b>	<pre> &lt;xsd:simpleType name="LongitudeDataType"&gt;   &lt;xsd:restriction base="xsd:decimal"&gt;     &lt;xsd:totalDigits value="9"/&gt;     &lt;xsd:fractionDigits value="6"/&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;   </pre>

#### 4.4.3.8 SIMPLE TYPE: ReferencePointDataType

**Table 13.** Payload Structure for Reference Point Data Type

Name	ReferencePointDataType
Super-types	<a href="#">xsd:string</a> < ReferencePointDataType (by restriction)
Sub-types	None
Content	<ul style="list-style-type: none"> <li>• Base XSD Type: string</li> <li>• value comes from list: {'UNKNOWN' 'PLANT ENTRANCE (GENERAL)' 'OTHER' 'PLANT ENTRANCE (PERSONNEL)' 'PLANT ENTRANCE (FREIGHT)' 'AIR RELEASE STACK' 'AIR RELEASE VENT' 'STORAGE TANK' 'WATER RELEASE PIPE' 'LAGOON OR SETTLING POND' 'LIQUID WASTE TREATMENT UNIT' 'ATMOSPHERIC EMISSIONS TREATMENT UNIT' 'SOLID WASTE TREATMENT/DISP. UNIT' 'SOLID WASTE STORAGE AREA' 'LOADING FACILITY' 'LOADING AREA CENTROID' 'PROCESS UNIT' 'PROCESS UNIT AREA CENTROID' 'ADMINISTRATIVE BUILDING' 'FACILITY CENTROID' 'NE CORNER OF LAND PARCEL' 'SE CORNER OF LAND PARCEL' 'NW CORNER OF LAND PARCEL' 'SW CORNER OF LAND PARCEL' 'CENTER OF FACILITY' 'WELLHEAD PROTECTION AREA' 'WATER MONITORING STATION' 'INTAKE PIPE' 'WELL' 'AIR MONITORING STATION' 'WATER WELL' 'SPRING' 'SOURCE WATER AREA' 'POTENTIAL CONTAMINANT SOURCE' 'SOURCE WATER PROTECTION AREA' 'SLUDGE FIELD' 'INCINERATOR' 'EMERGENCY OVERFLOW' 'COMBINED ANIMAL FEED OPERATION (CAFO)'} </li> </ul>
Diagram	<pre> classDiagram     class ReferencePointDataType {         &lt;&lt;Simple Type&gt;&gt;         &lt;&lt;Restriction&gt;&gt;         &lt;&lt;Base Type&gt;&gt; xsd:string     }   </pre>
Schema Component Representation	<pre> &lt;xsd:simpleType name="ReferencePointDataType"&gt;   &lt;xsd:restriction base="<a href="#">xsd:string</a>"&gt;     &lt;xsd:enumeration value="UNKNOWN"/&gt;     &lt;xsd:enumeration value="PLANT ENTRANCE (GENERAL)"/&gt;     &lt;xsd:enumeration value="OTHER"/&gt;     &lt;xsd:enumeration value="PLANT ENTRANCE (PERSONNEL)"/&gt;     &lt;xsd:enumeration value="PLANT ENTRANCE (FREIGHT)"/&gt;     &lt;xsd:enumeration value="AIR RELEASE STACK"/&gt;     &lt;xsd:enumeration value="AIR RELEASE VENT"/&gt;     &lt;xsd:enumeration value="STORAGE TANK"/&gt;     &lt;xsd:enumeration value="WATER RELEASE PIPE"/&gt;     &lt;xsd:enumeration value="LAGOON OR SETTLING POND"/&gt;     &lt;xsd:enumeration value="LIQUID WASTE TREATMENT UNIT"/&gt;     &lt;xsd:enumeration value="ATMOSPHERIC EMISSIONS TREATMENT UNIT"/&gt;     &lt;xsd:enumeration value="SOLID WASTE TREATMENT/DISP. UNIT"/&gt;     &lt;xsd:enumeration value="SOLID WASTE STORAGE AREA"/&gt;     &lt;xsd:enumeration value="LOADING FACILITY"/&gt;     &lt;xsd:enumeration value="LOADING AREA CENTROID"/&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;   </pre>

```
<xsd:enumeration value="PROCESS UNIT"/>
<xsd:enumeration value="PROCESS UNIT AREA CENTROID"/>
<xsd:enumeration value="ADMINISTRATIVE BUILDING"/>
<xsd:enumeration value="FACILITY CENTROID"/>
<xsd:enumeration value="NE CORNER OF LAND PARCEL"/>
<xsd:enumeration value="SE CORNER OF LAND PARCEL"/>
<xsd:enumeration value="NW CORNER OF LAND PARCEL"/>
<xsd:enumeration value="SW CORNER OF LAND PARCEL"/>
<xsd:enumeration value="CENTER OF FACILITY"/>
<xsd:enumeration value="WELLHEAD PROTECTION AREA"/>
<xsd:enumeration value="WATER MONITORING STATION"/>
<xsd:enumeration value="INTAKE PIPE"/>
<xsd:enumeration value="WELL"/>
<xsd:enumeration value="AIR MONITORING STATION"/>
<xsd:enumeration value="WATER WELL"/>
<xsd:enumeration value="SPRING"/>
<xsd:enumeration value="SOURCE WATER AREA"/>
<xsd:enumeration value="POTENTIAL CONTAMINANT SOURCE"/>
<xsd:enumeration value="SOURCE WATER PROTECTION AREA"/>
<xsd:enumeration value="SLUDGE FIELD"/>
<xsd:enumeration value="INCINERATOR"/>
<xsd:enumeration value="EMERGENCY OVERFLOW"/>
<xsd:enumeration value="COMBINED ANIMAL FEED OPERATION (CAFO)"/>
</xsd:restriction>
</xsd:simpleType>
```

#### 4.4.3.9 SIMPLE TYPE: **StateCodeDataType**

**Table 14.** Payload Structure for State Code Data Type

<b>Name</b>	StateCodeDataType
<b>Super-types</b>	<a href="#">xsd:string</a> < <b>StateCodeDataType</b> (by restriction)
<b>Sub-types</b>	None
<b>Content</b>	<ul style="list-style-type: none"> <li>• Base XSD Type: string</li> <li>• <i>pattern</i> = [A-Z]{2}</li> <li>• <i>length</i> = 2</li> </ul>
<b>Diagram</b>	<pre> classDiagram     class StateCodeDataType {         &lt;&lt;xsd:string&gt;&gt;     }     class xsd.string {         &lt;&lt;Restrict : xsd:string&gt;&gt;         &lt;&lt;Base Type : xsd:string&gt;&gt;     }     StateCodeDataType "1" -- "1" Restrict : xsd:string   </pre>
<b>Schema Component Representation</b>	<pre> &lt;xsd:simpleType name="StateCodeDataType"&gt;   &lt;xsd:restriction base="xsd:string"&gt;     &lt;xsd:length value="2"/&gt;     &lt;xsd:pattern value="[A-Z]{2}" /&gt;   &lt;/xsd:restriction&gt; &lt;/xsd:simpleType&gt;   </pre>

## 5.0 DATA TRANSFER PROCESS

Figure 1 below depicts the Geospatial Data Download Service Web page. The EPA Geospatial Data File can be accessed through the service via the following steps:

1. Connect to the Internet by means of a Web browser application.
2. Navigate to the Geospatial Data Download Service Web page through the Envirofacts Web site (<http://www.epa.gov/enviro>) by clicking on the **Geospatial Data Download** link on the left hand navigation bar.
3. Click on the **Download the XML File** button to begin the transfer of the EPA Geospatial Data File. No user authentication is required to access and download the data. The file is compressed in ZIP format.
4. Select the **Save** button to copy the file to your computer.
5. Uncompress the file (.xml extension) using a file decompression utility program that supports the ZIP format.
6. The EPA Geospatial Data File is available for use by mapping applications.

### 5.1 E-MAIL NOTIFICATION OF DATA UPDATES

Users can sign up for an e-mail notification service that provides alert messages when the EPA Geospatial Data File is updated. A user can enter a valid e-mail address in the **E-mail** field and click the **Submit** button.

### 5.2 ERROR CORRECTION

As part of EPA's ongoing efforts to improve data quality, an error correction process enables users to directly notify the Agency of data errors. Click the **Report an Error** button on the upper right corner of the Geospatial Data Download Service Web page to improve data quality.

## EPA Geospatial Data Download Service

The screenshot shows the official website for the EPA Geospatial Data Download Service. The top navigation bar includes links for Recent Additions, Contact Us, Print Version, and a search bar. Below the header, a breadcrumb trail shows the user's path: EPA Home > Envirofacts > EPA Geospatial Data Download Service.

**Geospatial Data Access Project**

To improve public health and the environment, the EPA collects information about facilities or sites subject to environmental regulation. The EPA Geospatial Data Access Project provides a downloadable extensible markup language (XML) file, Shapefile and Feature Class of these facilities or sites. Within the file is key facility information, along with associated environmental interests for use in mapping and reporting applications. If you find erroneous data with the download file(s), please click on the "Report an Error" button to notify the EPA of data errors.

**Geospatial Data Download**

To download the latest Geospatial Data file(s), please click on the appropriate button below.

[Download XML File](#) File Size: 5.80MB, Posted: 12/31/2007  
[Download Shapefile](#) File Size: 7.80MB, Posted: 12/31/2007  
[Download Feature Class](#) File Size: 15.9MB, Posted: 12/31/2007

[View Geospatial Data History](#)

**Featured Environmental Interests**

EPA Geospatial Data Download file(s) includes:

- Superfund [National Priorities List](#) (NPL)
- RCRAInfo - [Treatment, Storage, Disposal](#) facilities
- [Toxic Release Inventory System](#) - All reported years
- NEPT - [National Environmental Performance Track](#)
- Permit Compliance System (PCS) - [National Pollutant Discharge Elimination System \(NPDES\) Majors](#)
- RCRAInfo - [Large Quantity Generators \(LQG\)](#) **NEW**
- Air Facility System (AFS) - [Major discharges of air pollutants](#) **NEW**

**Notification Service**

Would you like notification of geospatial data updates by email?

Email:  [SUBMIT](#)

[EPA Home](#) | [Privacy and Security Notice](#) | [Contact Us](#)

Figure 1.—EPA Geospatial Data Download Service Web Page.

## 6.0 APPENDICES

### 6.1 APPENDIX A: ACRONYMS AND DEFINITIONS

Acronym	Definition
AFS	Air Facility System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
EPA	U.S. Environmental Protection Agency
ESRI	Environmental Systems Research Institute
FRS	Facility Registry System
HTML	Hypertext Markup Language
LQG	Large Quantity Generators
NAD83	North American Datum of 1983
NEPT	National Environmental Performance Track
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
PCS	Permit Compliance System
QA	Quality Assurance
RCRA	Resource Conservation and Recovery Act
RCRAINFO	Resource Conservation and Recovery Act Information System
TRI	Toxics Release Inventory
TSD	Treatment, Storage, Disposal
URL	Uniform Resource Locator
XML	Extensible Markup Language
ZIP	Zone Improvement Plan

## 6.2 APPENDIX B: XML SCHEMA

```
<?xml version="1.0" encoding="utf-8" ?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="unqualified" attributeFormDefault="unqualified" version="1.0">
<xsd:annotation>
<xsd:documentation>Schema Name : EPA_GEO DATA_v1.0.xsd Current Version
Available At : Description : This schema is used to produce a data set with the
locations of EPA Regulated Facilities for use by commercial mapping services and
others in industry. Application : EPA Geospatial Data Public File Developed by :
Environmental Protection Agency Point of Contact : Environmental Protection
Agency</xsd:documentation>
</xsd:annotation>
<xsd:element name="Document">
<xsd:complexType>
<xsd:sequence>
<xsd:element name="Header" type="HeaderType" />
<xsd:element name="FacilitySite" type="FacilitySiteType" minOccurs="0"
  maxOccurs="unbounded" />
</xsd:sequence>
</xsd:complexType>
</xsd:element>
<xsd:complexType name="HeaderType">
<xsd:sequence>
<xsd:element name="Title" type="xsd:string" minOccurs="0" />
<xsd:element name="Creator" type="xsd:string" minOccurs="0" />
<xsd:element name="Subject" type="xsd:string" minOccurs="0" />
<xsd:element name="Description" type="xsd:string" minOccurs="0" />
<xsd:element name="Date" type="xsd:date" minOccurs="0" />
</xsd:sequence>
</xsd:complexType>
- <!--
each record contains information for one facility site i.e one registryId
-->
<xsd:complexType name="FacilitySiteType">
<xsd:sequence>
<xsd:element name="FacilitySiteName" type="xsd:string" />
<xsd:element name="LocationAddressText" type="xsd:string" minOccurs="0" />
<xsd:element name="LocalityName" type="xsd:string" minOccurs="0" />
<xsd:element name="LocationAddressStateCode" type="StateCodeDataType"
  minOccurs="0" />
<xsd:element name="LocationZIPCode" type="xsd:string" minOccurs="0" />
<xsd:element name="LatitudeMeasure" type="LatitudeDataType" minOccurs="0" />
<xsd:element name="LongitudeMeasure" type="LongitudeDataType" minOccurs="0" />
<xsd:element name="HorizontalCoordinateReferenceSystemDatumName"
  type="HorizontalDatumDataType" minOccurs="0" />
<xsd:element name="HorizontalCollectionMethodName"
  type="HorizontalMethodDataType" minOccurs="0" />
<xsd:element name="GeographicReferencePointName"
  type="ReferencePointDataType" minOccurs="0" />
```

---

## EPA Geospatial Data Download Service

```
<xsd:element name="SourceMapScaleNumeric" type="xsd:nonNegativeInteger"
  minOccurs="0" />
<xsd:element name="GeneralProfileElectronicAddress" type="ElectronicAddress"
  minOccurs="0" />
- <!--
one facility site may have multiple program facilities with specific
interestType
-->
<xsd:element name="Program" type="ProgramType" minOccurs="0"
  maxOccurs="unbounded" />
</xsd:sequence>
<xsd:attribute name="registryId" type="xsd:string" use="required" />
</xsd:complexType>
<xsd:complexType name="ElectronicAddress">
<xsd:sequence>
<xsd:element name="ElectronicAddressText" type="xsd:anyURI" />
<xsd:element name="ElectronicAddressTypeName" type="xsd:string" />
</xsd:sequence>
</xsd:complexType>
- <!--
ProgramID, Name, and InterestType define one tag content
-->
<xsd:complexType name="ProgramType">
<xsd:sequence>
<xsd:element name="ProgramCommonName" type="xsd:string" />
<xsd:element name="ProgramAcronymName" type="xsd:string" />
<xsd:element name="ProgramIdentifier" type="xsd:string" />
<xsd:element name="ProgramInterestType" type="xsd:string" />
<xsd:element name="ProgramFullName" type="xsd:string" />
<xsd:element name="ProgramDescription" type="xsd:string" />
<xsd:element name="ProgramFacilitySiteName" type="xsd:string" />
<xsd:element name="ProgramProfileElectronicAddress" type="ElectronicAddress" />
</xsd:sequence>
</xsd:complexType>
<xsd:simpleType name="LatitudeDataType">
<xsd:restriction base="xsd:decimal">
<xsd:totalDigits value="8" />
<xsd:fractionDigits value="6" />
</xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="LongitudeDataType">
<xsd:restriction base="xsd:decimal">
<xsd:totalDigits value="9" />
<xsd:fractionDigits value="6" />
</xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="StateCodeDataType">
<xsd:restriction base="xsd:string">
<xsd:length value="2" />
<xsd:pattern value="[A-Z]{2}" />
</xsd:restriction>
```

```
</xsd:simpleType>
<xsd:simpleType name="ReferencePointDataType">
<xsd:restriction base="xsd:string">
<xsd:enumeration value="UNKNOWN" />
<xsd:enumeration value="PLANT ENTRANCE (GENERAL)" />
<xsd:enumeration value="OTHER" />
<xsd:enumeration value="PLANT ENTRANCE (PERSONNEL)" />
<xsd:enumeration value="PLANT ENTRANCE (FREIGHT)" />
<xsd:enumeration value="AIR RELEASE STACK" />
<xsd:enumeration value="AIR RELEASE VENT" />
<xsd:enumeration value="STORAGE TANK" />
<xsd:enumeration value="WATER RELEASE PIPE" />
<xsd:enumeration value="LAGOON OR SETTLING POND" />
<xsd:enumeration value="LIQUID WASTE TREATMENT UNIT" />
<xsd:enumeration value="ATMOSPHERIC EMISSIONS TREATMENT UNIT" />
<xsd:enumeration value="SOLID WASTE TREATMENT/DISP. UNIT" />
<xsd:enumeration value="SOLID WASTE STORAGE AREA" />
<xsd:enumeration value="LOADING FACILITY" />
<xsd:enumeration value="LOADING AREA CENTROID" />
<xsd:enumeration value="PROCESS UNIT" />
<xsd:enumeration value="PROCESS UNIT AREA CENTROID" />
<xsd:enumeration value="ADMINISTRATIVE BUILDING" />
<xsd:enumeration value="FACILITY CENTROID" />
<xsd:enumeration value="NE CORNER OF LAND PARCEL" />
<xsd:enumeration value="SE CORNER OF LAND PARCEL" />
<xsd:enumeration value="NW CORNER OF LAND PARCEL" />
<xsd:enumeration value="SW CORNER OF LAND PARCEL" />
<xsd:enumeration value="CENTER OF FACILITY" />
<xsd:enumeration value="WELLHEAD PROTECTION AREA" />
<xsd:enumeration value="WATER MONITORING STATION" />
<xsd:enumeration value="INTAKE PIPE" />
<xsd:enumeration value="WELL" />
<xsd:enumeration value="AIR MONITORING STATION" />
<xsd:enumeration value="WATER WELL" />
<xsd:enumeration value="SPRING" />
<xsd:enumeration value="SOURCE WATER AREA" />
<xsd:enumeration value="POTENTIAL CONTAMINANT SOURCE" />
<xsd:enumeration value="SOURCE WATER PROTECTION AREA" />
<xsd:enumeration value="SLUDGE FIELD" />
<xsd:enumeration value="INCINERATOR" />
<xsd:enumeration value="EMERGENCY OVERFLOW" />
<xsd:enumeration value="COMBINED ANIMAL FEED OPERATION (CAFO)" />
</xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="HorizontalDatumDataType">
<xsd:restriction base="xsd:string">
<xsd:enumeration value="NAD27" />
<xsd:enumeration value="NAD83" />
<xsd:enumeration value="WGS84" />
```

```
</xsd:restriction>
</xsd:simpleType>
<xsd:simpleType name="HorizontalMethodDataType">
<xsd:restriction base="xsd:string">
<xsd:enumeration value="ADDRESS MATCHING-BLOCK FACE" />
<xsd:enumeration value="ADDRESS MATCHING-DIGITIZED" />
<xsd:enumeration value="ADDRESS MATCHING-HOUSE NUMBER" />
<xsd:enumeration value="ADDRESS MATCHING-NEAREST INTERSECTION" />
<xsd:enumeration value="ADDRESS MATCHING-OTHER" />
<xsd:enumeration value="ADDRESS MATCHING-PRIMARY NAME" />
<xsd:enumeration value="ADDRESS MATCHING-STREET CENTERLINE" />
<xsd:enumeration value="CENSUS BLOCK/GROUP-1990-CENTROID" />
<xsd:enumeration value="CENSUS BLOCK/TRACT-1990-CENTROID" />
<xsd:enumeration value="CENSUS BLOCK-1990-CENTROID" />
<xsd:enumeration value="CENSUS-OTHER" />
<xsd:enumeration value="CLASSICAL SURVEYING TECHNIQUES" />
<xsd:enumeration value="GPS-UNSPECIFIED" />
<xsd:enumeration value="GPS CARRIER PHASE KINEMATIC RELATIVE POSITION" />
<xsd:enumeration value="GPS CARRIER PHASE STATIC RELATIVE POSITION" />
<xsd:enumeration value="GPS CODE (PSEUDO RANGE) DIFFERENTIAL" />
<xsd:enumeration value="GPS CODE (PSEUDO RANGE) PRECISE POSITION" />
<xsd:enumeration value="GPS CODE (PSEUDO RANGE) STANDARD POSITION (SA OFF)" />
<xsd:enumeration value="GPS CODE (PSEUDO RANGE) STANDARD POSITION (SA ON)" />
<xsd:enumeration value="GPS, WITH CANADIAN ACTIVE CONTROL SYSTEM" />
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<xsd:enumeration value="INTERPOLATION-SPOT" />
<xsd:enumeration value="INTERPOLATION-MSS" />
<xsd:enumeration value="INTERPOLATION-TM" />
<xsd:enumeration value="INTERPOLATION-MAP" />
<xsd:enumeration value="INTERPOLATION-OTHER" />
<xsd:enumeration value="INTERPOLATION-PHOTO" />
<xsd:enumeration value="INTERPOLATION-SATELLITE" />
<xsd:enumeration value="LORAN C" />
<xsd:enumeration value="PUBLIC LAND SURVEY-EIGHTH SECTION" />
<xsd:enumeration value="PUBLIC LAND SURVEY-FOOTING" />
<xsd:enumeration value="PUBLIC LAND SURVEY-SIXTEENTH SECTION" />
<xsd:enumeration value="PUBLIC LAND SURVEY-QUARTER SECTION" />
<xsd:enumeration value="PUBLIC LAND SURVEY-SECTION" />
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</xsd:restriction>
</xsd:simpleType>
</xsd:schema>
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### 6.3 APPENDIX C: SAMPLE XML DATA FILE

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  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
<Header>
<Title>USEPA Geospatial Data</Title>
<Creator>Environmental Protection Agency</Creator>
<Subject>USEPA Geospatial Data</Subject>
<Description>This XML file was produced by US EPA and contains data specifying the
  locations of EPA regulated facilities or cleanups that are being provided by EPA for
  use by commercial mapping services and others with an interest in using this
  information. Updates to this file are produced on a regular basis by EPA and those
  updates as well as documentation describing the contents of the file can be found
  at URL: http://www.epa.gov/enviro</Description>
<Date>2007-02-26</Date>
</Header>
<FacilitySite registryId="110000323034">
<FacilitySiteName>REVERE SMELTING & REFINING CORP</FacilitySiteName>
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<LocalityName>MIDDLETOWN</LocalityName>
<LocationAddressStateCode>NY</LocationAddressStateCode>
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</HorizontalCoordinateReferenceSystemDatumName>
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  INTERSECTION</HorizontalCollectionMethodName>
<SourceMapScaleNumeric>0</SourceMapScaleNumeric>
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  <ElectronicAddressText>http://oaspub.epa.gov/enviro/fac_gateway.main?p_regid=
    110000323034</ElectronicAddressText>
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</GeneralProfileElectronicAddress>
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<ProgramCommonName>RCRA TSDFs</ProgramCommonName>
<ProgramAcronymName>RCRA</ProgramAcronymName>
<ProgramIdentifier>NYD030485288</ProgramIdentifier>
<ProgramInterestType>TSD</ProgramInterestType>
<ProgramFullName>Treatment, Storage, Disposal Facilities</ProgramFullName>
<ProgramDescription>Through the Resource Conservation and Recovery Act (RCRA),
  Congress directed EPA to create regulations to manage hazardous waste from 'the
  cradle to the grave.' Under this mandate, EPA developed strict requirements for all
  aspects of hazardous waste management including the treatment, storage, and
  disposal of hazardous waste.</ProgramDescription>
<ProgramFacilitySiteName>REVERE SMELTING & REFINING
  CORP</ProgramFacilitySiteName>
<ProgramProfileElectronicAddress>
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## EPA Geospatial Data Download Service

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<ProgramInterestType>TRI REPORTER</ProgramInterestType>
<ProgramFullName>Toxics Release Inventory Program</ProgramFullName>
<ProgramDescription>The Toxics Release Inventory (TRI) is a publicly available EPA database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities.</ProgramDescription>
<ProgramFacilitySiteName>REVERE SMELTING & REFINING
  CORP</ProgramFacilitySiteName>
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<ProgramInterestType>SUPERFUND NPL</ProgramInterestType>
<ProgramFullName>The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)</ProgramFullName>
<ProgramDescription>The Superfund Program, administered under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is an EPA
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## EPA Geospatial Data Download Service

**Program to locate, investigate, and clean up the worst hazardous waste sites throughout the United States.** </ProgramDescription>

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<ProgramProfileElectronicAddress>

<ElectronicAddressText><http://www.epa.gov/superfund/action/law/cercla.htm>

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</ProgramProfileElectronicAddress>

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<ProgramIdentifier>**PA6170024545**</ProgramIdentifier>

<ProgramInterestType>**TSD**</ProgramInterestType>

<ProgramFullName>**Treatment, Storage, Disposal Facilities**</ProgramFullName>

<ProgramDescription>Through the Resource Conservation and Recovery Act (RCRA), Congress directed EPA to create regulations to manage hazardous waste from 'the cradle to the grave.' Under this mandate, EPA developed strict requirements for all aspects of hazardous waste management including the treatment, storage, and disposal of hazardous waste.</ProgramDescription>

<ProgramFacilitySiteName>**NAVAL AIR WARFARE CTR**</ProgramFacilitySiteName>

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</FacilitySite>

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<LocalityName>**CORNELIA**</LocalityName>

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<HorizontalCollectionMethodName>**ADDRESS MATCHING-NEAREST  
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<Program>

<ProgramCommonName>**Performance Track**</ProgramCommonName>

<ProgramAcronymName>**NEPT**</ProgramAcronymName>

<ProgramIdentifier>**A040013AF**</ProgramIdentifier>

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## EPA Geospatial Data Download Service

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<ProgramInterestType>PERFORMANCE TRACK</ProgramInterestType>
<ProgramFullName>National Environmental Performance Track</ProgramFullName>
<ProgramDescription>Performance Track is a partnership that recognizes top
environmental performance among participating U.S. facilities of all types, sizes,
and complexity, public and private. Program partners are providing leadership in
many areas, including some that are not currently regulated, such as energy use,
greenhouse gas emissions, and water consumption.</ProgramDescription>
<ProgramFacilitySiteName>ETHICON INCORPORATED</ProgramFacilitySiteName>
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    <ElectronicAddressText>http://www.epa.gov/performancetrack/index.htm</ElectronicAddressText>
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<ProgramFullName>Toxics Release Inventory Program</ProgramFullName>
<ProgramDescription>The Toxics Release Inventory (TRI) is a publicly available EPA
database that contains information on toxic chemical releases and other waste
management activities reported annually by certain covered industry groups as
well as federal facilities.</ProgramDescription>
<ProgramFacilitySiteName>ETHICON INCORPORATED</ProgramFacilitySiteName>
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</Document>
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